

2000 Report to the New York State Urban IPM Program

The Cornell Turfgrass Hotline; A Pest Management Decision-Making Tool for Extension Staff and Turfgrass Managers.

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Project Overview

The New York State Integrated Pest Management (IPM) program has established an international reputation for delivering quality programming that results in enhanced management practices focused on reducing pesticide use. Thousands of turfgrass managers are implementing techniques developed and delivered through Cornell-based research and extension efforts. Still, there is a majority of turf managers who are unaware, unable, or not interested in utilizing the research-based information for the purpose of reducing pesticide use.

Clearly, for a portion of this disenfranchised audience, no amount of effort will produce the desired result. Yet, *easy and equal access* to information could improve pest management decisions. Knowledge-based decision-making is the cornerstone of what is needed to reduce pesticide use in New York State.

The Cornell Turfgrass Team in partnership with the IPM Program is chronically understaffed to meet the information delivery needs of New York, and more recently the north east region. Simply, our success in putting the wealth of new technologies to work has been limited by our ability to transfer the information in a timely and consistent format.

The advent of sophisticated interactive learning technologies, including communication and computer systems, enhances the feasibility and efficiency of handling large volumes of inquiries. Currently, a person interested in current cultural or pest management recommendations based on the latest environmental conditions would speak directly to an extension educator, agricultural and technical college faculty, or a campus specialist. If the information was available via eMail, world wide web or broadcast FAX, it could be accessed anytime and possibly made regional to enhance clientele satisfaction.

The goal of this project is to identify the key aspects of a timely, responsive, pest management information service as a means of improving pest management and reducing pesticide use through the promotion of non-chemical and biological strategies.

The Cornell Turfgrass Hotline involves a weekly conference call during the growing season, among meteorologists, turfgrass specialists on campus, extension (field staff) educators, and national experts (including USGA Agronomists). During the call, the weather is reviewed with forecast provided, then a “roll call” of updates from field staff is delivered, with questions being addressed across regions. Specialists discuss timely topics based on prevailing environmental conditions and finally a national expert discusses a particular topic more in-depth (such as root diseases or Annual Bluegrass Weevil). Following the call, the notes are transcribed, edited and written in bullet-format, amenable for use as a decision-making tool that is delivered via eMail or broadcast FAX to every county office in New York State and selected industry leaders.

Financial Results

Since the inception of the Hotline in 1998, we maintained a break-even financial philosophy in an effort to recover the “real” cost of delivering this information. Following a few years of start up funding from the NYS IPM Program and New York State Turfgrass Association, cost recovery would come from subscriptions.

Annual expenses for labor, conference time, and materials averaged \$19,500. Start up funding for the first two years averaged \$7,000, leaving a deficit of \$12,000 per year. Subscriber fees began at \$30 per year and in 1998 and 1999 we had 70 paid. In 2000, subscriber fee and subscriptions increased 200%. There were increased costs associated with promotion such as direct mailings and travel to meetings. However, we are getting closer to reaching our goal of providing an user-funded information delivery system.

Impact of The Cornell Turfgrass Hotline

Logistics

In 2000, the Turfgrass Hotline ran for 34 weeks. Extension educator attendance at the weekly conference call was at least 75% (9 of 12 invited staff) throughout the season. A survey of call participants indicate that they are generally satisfied with the day and time of the call (Table 1). The three Hotline groups (Call participants, Field Staff who receive the newsletter, and subscribers, preferred the Monday delivery of the electronic newsletter. Interestingly, the subscribers strongly agreed with the idea to continue a monthly newsletter during the winter. In general, extension staff was not as interested in the winter newsletter, most likely due to their responsibilities outside of turf.

The subscribers were very interested in submitting questions that could be answered during the call, with extension field staff significantly less interested. There was only slight interest in increasing the amount of county-based information. This could be related to the broad applicability of the existing format. In fact, the information in the weekly e-newsletter appears to be written in a non-technical style that is well received by call participants and subscribers. However, the field staff who just receive the newsletter, feel that the information is too technical.

The perceived technicality of the newsletter reflects the fact that in many counties, the field staff are not horticultural agents and may lack basic expertise. In the future we will be making a concerted effort to improve on the issue by offering additional in-service opportunities, or simplifying the information. Nevertheless, penetration into counties that lack this expertise is critical for the Cornell Cooperative Extension (CCE) to serve increasing horticultural interests or professionals and consumers.

Usefulness

The 2000 subscriber profile indicated that 45% were from golf, 25% lawn care, 15% grounds/sports turf and 15% industry representatives (equipment and product sales). This represents a major shift in subscriptions from 1999 where lawn care subscriptions represented 53% of the total. This is likely a result of increased costs in 2000.

In general, survey results indicate a high level of satisfaction with the usefulness of the Hotline (Table 2). As an educational and information transfer resource the Hotline is used regularly by the groups for writing articles and answering client questions.

From a decision-making perspective, subscribers overwhelmingly agree that the Hotline has been integrated into their decision-making process. Increased awareness of environmental

issues, such as water quality was an important aspect of the Hotline. In addition, the subscribers indicated that not only is the Hotline information resulted in a change in their management strategies, they agree that it helped reduce pesticide use.

Summary

We have great expectation for the fourth year of the Turfgrass Hotline in 2001. Survey information collected to date has validated many of our current delivery and informational strategies. In addition, word of mouth is spreading and we expect to surpass our subscription amounts from 2000 by 100%. This would result in reduced expectation from outside funding sources.

We are pleased with the overall usefulness of the Hotline to educators and managers. In fact, this information delivery approach supports educational research conducted on asynchronous distance learning. In those studies, researchers found that end-users utilize distance learning approaches, such as the Hotline, for just-in-time learning, i.e., the user access the information just when they need it. This is reflected by the active integration of the information that resulted in pesticide use reduction. An aspect of management that could only have been reduced with this form of delivery.

Table 1. Summary of various participant responses to evaluate perceptions about the delivery and format of the Turfgrass ShortCUTT.

Question	Score [†]		
	Call Participants	Field Staff	Subscribers
Monday is the best day to receive ShortCUTT.	4.0a [‡]	4.0a	4.0a
I would like ShortCUTT to continue on a monthly basis through the winter.	3.75b	4.0b	4.3a
I would like to submit questions for a Q & A section.	N/A	3.0b	4.4a
ShortCUTT should contain more in-depth county information.	3.75a	3.5a	N/A
ShortCUTT is too technical.	1.5b	4.0a	1.1b
ShortCUTT conference call is at convenient time.	3.25	N/A	N/A
ShortCUTT conference call is on convenient day.	3.25	N/A	N/A

[†] Rating Scale: 1=strongly disagree; 2=disagree; 3=neutral; 4=agree; 5=strongly agree.

[‡] Means within a row followed by different letters are significantly different at $p < 0.05$ based on Fisher's protected LSD.

Table 2. Summary of various participant responses to evaluate perceptions about the usefulness of the Turfgrass ShortCUTT.

Question	Score [†]		
	Call Participants	Field Staff	Subscribers
ShortCUTT is an important educational tool.	4.0a [‡]	4.5a	4.5a
I use ShortCUTT to answer client questions.	4.0a	4.0a	4.0a
I use ShortCUTT information when writing articles.	4.0ab	4.5a	4.5a
As a result of ShortCUTT, I am more aware of water quality and environmental issues as they relate to turf.	3.0b	4.25a	4.0a
Information in ShortCUTT has been integrated into my decision-making.	N/A	N/A	4.5
ShortCUTT has resulted in a change in my management strategies.	N/A	N/A	4.0
ShortCUTT has helped me reduce pesticide use.	N/A	N/A	4.0
I will subscribe/like to receive ShortCUTT next year.	5.0a	5.0a	5.0a

[†] Rating Scale: 1=strongly disagree; 2=disagree; 3=neutral; 4=agree; 5=strongly agree.

[‡] Means within a row followed by different letters are significantly different at p<0.05 based on Fisher's protected LSD.